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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/776,877	BRAUSS, MICHAEL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jurie Yun	2882	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 11/21/05.
2. ☒ The allowed claim(s) is/are 1-31 and 39-47.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
|---|---|

**DETAILED ACTION**

1. The amendment filed 11/21/05 has been entered.
2. The drawings filed 2/8/06 have been entered.

***Response to Arguments***

3. Applicant's arguments filed 11/21/05 have been fully considered and are persuasive. The rejections of claims 1-31 and 39-43 have been withdrawn.

**EXAMINER'S AMENDMENT**

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Julius Tabin on 4/10/06.

The application has been amended as follows:

In claim 6, line 14, delete "the" and replace with --a--

In claim 16, line 4, delete "said cross hole" and replace with --a cross hole--

***Allowable Subject Matter***

5. Claims 1-31 and 39-47 are allowed.
6. The following is an examiner's statement of reasons for allowance: Prior art fails to disclose a non-destructive testing system comprising an anode of the X-ray head assembly for generating X-rays, a coolant flow path formed in the head assembly, and a detachable connection between the filter holder and the head assembly that removably

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connects the filter holder to the X-ray head assembly in a substantially fixed position adjacent to the anode and allows the holder to be quickly and easily detached from the head assembly for filter servicing while substantially leaving the remainder of the head assembly intact and assembled together, as claimed in claim 1. Claims 2-5 are allowed due to their dependency on claim 1.

Prior art fails to disclose a non-destructive testing system comprising a detachable connection between the filter holder and the X-ray head assembly that allows the holder to be quickly and easily detached from the head assembly for filter servicing while substantially leaving the remainder of the head assembly intact and assembled together, the filter holder having a head portion and a stem portion with the filter carried in the stem portion, the housing including a receptacle for receiving the filter holder to allow the filter to be disposed in the flow channel to thereby provide cleaning of the liquid coolant, as claimed in claim 6. Claims 7-23 are allowed due to their dependency on claim 6.

Prior art fails to disclose an X-ray diffraction device comprising an X-ray tube including an anode assembly, a housing surrounding at least a portion of the X-ray tube, the housing including a flow channel for channeling flow of the liquid coolant, the flow channel passing adjacent the anode assembly so as to withdraw heat therefrom, and the housing including a receptacle for removably receiving the filter holder so as to dispose the filter in the flow channel to thereby provide cleaning of the cooling medium, as claimed in claim 24. Claims 25-31 are allowed due to their dependency on claim 24.

Prior art fails to disclose a method of cooling an X-ray tube, comprising surrounding at least a portion of the X-ray tube with a housing, providing the housing with a flow channel for channeling flow of a liquid coolant, providing a filter holder having a head portion and a stem portion, carrying the filter on the stem portion, and receiving the filter holder in the housing so as to dispose the filter in the flow channel, as claimed in claim 39. Claims 40-43 are allowed due to their dependency on claim 39.

Prior art fails to disclose an X-ray diffraction device comprising an X-ray diffraction tube including an anode assembly, and a fluid directing assembly that is removably fixed to the housing so that fluid is directed toward the anode assembly and to allow the fluid directing assembly to be removed from the housing for visual inspection of the anode assembly while substantially keeping the X-ray diffraction tube and housing assembled together, as claimed in claim 44. Claims 45-47 are allowed due to their dependency on claim 44.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

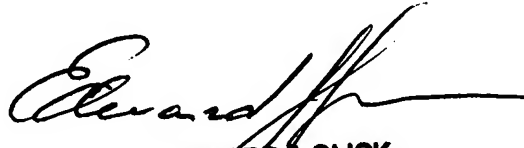
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jurie Yun whose telephone number is 571 272-2497. The examiner can normally be reached on Monday-Friday 8:30-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jurie Yun  
April 10, 2006



EDWARD J. GLICK  
SUPERVISORY PATENT EXAMINER